

In the Specification

Please replace paragraph [0001] with the following:

The present invention relates to flame-retardant resin composition and formed article wherein a non-halogenated flame retardant is compounded with a polybutylene terephthalate resin. More particularly, the invention relates to flame-retardant polybutylene terephthalate resin composition and formed article which have high degree of flame retardancy, ~~hydrolyzability~~hydrolysis resistance and tracking resistance, and in which occurrence of metal pollution due to a phosphoric acid ester is unlikely, and which are suitable for machine mechanism component parts, electrical/electronic component parts or automotive component parts, and which employ a non-halogenated flame retardant.

Please replace paragraph [0015] with the following:

These are useful flame-retardant resin materials not employing a halogenated flame retardant, but have the challenge of metal pollution characteristic and deterioration in ~~hydrolyzability~~hydrolysis resistance due to the organic phosphorus based flame retardant.

Please replace paragraph [0017] with the following:

The aforementioned resin component including a polyester based resin and a styrene based resin is a resin component useful for improvement in moldability related to warpage, etc., and the aforementioned flame retardant is a useful flame retardant not employing a halogenated flame retardant, but does not have effect on the challenge of the metal pollution characteristic and deterioration in ~~hydrolyzability~~hydrolysis resistance due to the phosphorus-containing compound.

Please replace paragraphs [0018] through [0021] with the following:

From what is described above, although the organic phosphorus based flame retardant, such as a phosphoric acid ester, etc., is a useful flame retardant as a method for flame-retarding the PBT

by a non-halogenated flame retardant, a flame-retardant PBT resin composition that does not cause the metal pollution and the deterioration in ~~hydrolyzability~~hydrolysis resistance due to a phosphoric acid ester has been desired.

Particularly, formed articles for fusers of printers and copiers, flyback transformers, focus cases, electromagnetic switches, and breakers are often required to have excellent performance in relation to metal pollution, ~~hydrolyzability~~hydrolysis resistance and flame retardancy.

Furthermore, a phenomenon in which if voltage is applied to a formed article, etc., carbonization of the formed article progresses and results in ignition is termed tracking. Many formed articles of the PBT are used ~~in~~under high voltage modification. For example, as for the aforementioned formed articles for fusers of printers and copiers, electromagnetic switches, and breakers, etc., formed articles having excellent flame retardancy and a relative tracking index of 400V or higher, and preferably 600V or higher, are desired.

It is a purpose of the present invention to attain highly reliable flame-retardant polybutylene terephthalate resin composition and formed article in which a non-halogenated flame retardant is compounded with a polybutylene terephthalate resin, and which have high degrees of flame retardancy and tracking resistance, and which are unlikely to allow occurrence of metal pollution or deterioration in ~~hydrolyzability~~hydrolysis resistance due to a phosphoric acid ester.

Please replace paragraph [0033] with the following:

Furthermore, as for the acrylonitrile/styrene copolymer, acrylonitrile/styrene copolymers containing acrylonitrile at 10wt.% or greater and less than 50wt.% are particularly preferable. More preferably, the content of acrylonitrile is 20wt.% or greater and less than 40wt.%. If the content of acrylonitrile is within an appropriate range, the employment thereof together with an alkali metal

compound achieves particularly increased effects of enhancing ~~hydrolyzability~~hydrolysis resistance and improving metal pollution characteristic.

Please replace paragraph [0058] with the following:

Furthermore, the compounding amount of the (B) vinyl based resin may be 1-20% by weight, more preferably 2-18% by weight, and particularly preferably 2-15% by weight in view of the flame retardancy, the contact contamination characteristic improving effect, and the ~~hydrolyzability~~hydrolysis resistance enhancing effect of the resultant flame-retardant resin composition caused by the combined use with other components.

Please replace paragraph [0062] with the following:

Furthermore, in the expressions of the expressions (2)-(4), R^1 - R^8 represent the same or different hydrogen atoms or alkyl groups having carbon numbers of 1-5. As specific examples of the alkyl groups having carbon numbers of 1-5, methyl group, ethyl group, n-propyl group, isopropyl group, n-butyl group, sec-butyl group, tert-butyl group, n-isopropyl, neopentyl, tert-pentyl group, 2-isopropyl, ~~neopentyl, tert-pentyl group~~, 3-isopropyl, ~~neopentyl, tert-pentyl group~~, neoisopropyl, ~~neopentyl, tert-pentyl group~~, etc. may be cited. Hydrogen, methyl group, and ethyl group are preferable, and hydrogen is particularly preferable.

Please replace paragraph [0066] with the following:

Furthermore, the adding amount of the (C) phosphoric acid ester is 1-20% by weight, preferably 2-18% by weight, and more preferably 3-15% by weight in view of flame retardancy, ~~hydrolyzability~~hydrolysis resistance, and metal pollution.

Please replace paragraphs [0068] through [0069] with the following:

Furthermore, the compounding amounts of the salt of the (D) triazine based compound and cyanuric acid or isocyanuric acid is 1-30% by weight, preferably 2-25% ~~parts~~-by weight, and particularly preferably 3-20% by weight, in view of flame retardancy and mechanical characteristic.

As the alkaline earth metal in the (E) alkaline earth metal compound used in the present invention, magnesium, calcium, barium, etc., are preferably cited. Furthermore, as the alkaline earth metal compound, hydroxides, oxides, inorganic acid salts, such as carbonic acid salts, sulfuric acid salts, acetic acid salts, phosphoric acid salts, etc., and organic acid salts, such as acetic acid salts, lactic acid salts, oleic acid, palmitic acid, stearic acid, montanoic acid, etc. are preferable. As specific examples, magnesium hydroxide, calcium hydroxide, barium hydroxide, magnesium oxide, calcium oxide, barium oxide, magnesium carbonate, calcium carbonate, barium carbonate, magnesium sulfate, calcium sulfate, barium sulfate, magnesium phosphate, calcium phosphate, barium phosphate, magnesium acetate, calcium acetate, barium acetate, magnesium lactate, calcium lactate, barium lactate, and, furthermore, magnesium salts, calcium salts, barium salts, etc. of organic acids, such as oleic acid, palmitic acid, stearic acid, montanoic acid, etc., may be cited. Among these, hydroxides and carbonic acid salts of alkaline earth metals are preferably used. Particularly, magnesium hydroxide and calcium carbonate are preferably used, and more preferably, calcium carbonate is used. Such alkaline earth metals may be used in a fashion of one species or two or more species. Furthermore, as for the aforementioned calcium carbonate, ~~colloidal~~ colloidal calcium carbonate, precipitated calcium carbonate, ground calcium carbonate, levigated fine powder ground calcium carbonate, wet ground calcium carbonate (chalk), etc., according to the production methods, are known, and each one of them is encompassed in the present invention.

Please replace paragraph [0072] with the following:

It is generally known that the hydrolysis of polyesters is accelerated by an acid or an alkali serving as a catalyst. Alkali metal compounds have alkalinity in many cases, and accelerates the hydrolysis of polyesters in ordinary cases. Therefore, addition thereof is not preferable. Therefore, as for the alkaline earth metal compound in the present invention, ones that are hardly soluble in water if in a neutral state, and that dissolves ~~in~~under an environment acidization and exhibits a neutralizing action if the phosphoric acid ester decomposes so that the system becomes acidic, are preferably used. The solubilities in the neutral state are described in various handbooks, for example, Chemical Handbook, published (1966) by Maruzen Kabushikigaisha, etc. The solubility in water is preferably 1g/100g water, more preferably 10^{-1} g/100g water, and particularly preferably 10^{-2} g/100g water. Incidentally, the solubility in water of calcium carbonate, which is most preferably used, is 5.2×10^{-3} g/100g water.

Please replace paragraph [0084] with the following:

Furthermore, in the present invention, an inorganic filler other than the fiber reinforcement material may further be compounded, which is for improving portions of the crystallization characteristic, arc resistance, anisotropy, mechanical strength, flame retardancy, heat deformation temperature, etc. of the present invention composition. As the inorganic filler other than the fiber reinforcement material, inorganic fillers in a spicular form, a granular form, a powder form and a layer form may be cited though the inorganic filler is not limited thereto. As specific examples, glass beads, milled fiber, glass flakes, potassium titanate whisker, calcium sulfate whisker, wollastonite, silica, kaolin, talc, smectite based clay minerals (montmorillonite, hectorite), vermiculite, mica, fluoro-taeniolite, zirconium phosphate, titanium phosphate, dolomite, etc., may be cited, and may be used in a fashion of one or more species. Furthermore, on the inorganic filler other than the fiber

reinforcement material, a surface treatment, such as an ionization treatment, etc., epoxy compound treatment, a coupling agent treatment, may be performed. Furthermore, the average particle diameter of the granular-form, powder-form and layer-form inorganic fillers is preferably 0.1-20 μm , and particularly preferably 0.2-10 μm , in view of impact strength. Furthermore, the compounding amount of the inorganic filler other than the fiber reinforcement material is preferably an amount whose sum with the compounding amount of the fiber reinforcement agent does not exceed 1-45% by weight, in view of the fluidity during forming and the durability of forming machines and molds.

Please replace paragraph [0088] with the following:

As the aromatic dihydric phenol based compound, 2,2-bis(4-hydroxy-phenyl)propane, 2,2-bis(4-hydroxy-3,5-dimethyl phenyl)propane, bis(4-hydroxyphenyl)meth-ane, 1,1-bis(4-hydroxy-phenyl)ethane, 2,2-bis(4-hydroxyphenyl)butane, 2,2-bis(4-hydroxy-3,5-diphenyl)butane, 2,2-bis(4-hydroxy-3,5-diethyl phenyl)propane, 2,2-bis(4-hydroxy-3,5-diethyl phenyl)propane, 1,1-bis(4-hydroxyphenyl)cyclohexane, 1-phenyl -1,1-bis(4-hydroxy-phenyl)ethane, etc. may be used. These may be used singly or as a mixture. However, if an amount of polycarbonate resin exceeding 5% by weight is compounded, the ~~hydrolyzability~~hydrolysis resistance may sometimes considerably deteriorate, and therefore, attention is needed. A preferable compounding amount of polycarbonate resin is less than 0.1-5% by weight, and preferably 0.5-3% by weight, from the aforementioned ~~hydrolyzability~~hydrolysis resistance and flame retardancy. Furthermore, a polycarbonate resin oligomer may be compounded if the amount thereof is in such a range that the characteristics of the present invention will not be impaired.

Please replace paragraphs [0093] through [0094] with the following:

As the aforementioned silicone resin, polyorganosilanes in which siloxane and a group selected from saturated or unsaturated monovalent hydrocarbon radical, hydrogen atom, hydroxyl

group, alkoxyl group, aryl group, vinyl or allyl group, are chemically bonded, may be cited. Ones having a viscosity of about 200-300000000 centipoises at room temperature are preferable; however, as long as one is a silicone resin as mentioned above, it is not restricted by that. The product configuration may be an oil form, a powder form, or a gum form. Introduction of epoxy group, ~~methacryl~~methacryl group and amino group as a functional group is permissible. A mixture of two or more species of silicone resins is also permissible.

As the silicone oil, polyorganosilanes in which siloxane and a group selected from saturated or unsaturated monovalent hydrocarbon radical, hydrogen atom, hydroxyl group, alkoxyl group, aryl group, vinyl or allyl group, are chemically bonded, may be cited. Ones having a viscosity of about 0.65-100,000 centistokes at room temperature are preferable; however, as long as one is a silicone oil resin as mentioned above, it is not restricted by that. The product configuration may be an oil form, a powder form, or a gum form. Introduction of epoxy group, ~~methacryl~~methacryl group and amino group as a functional group is permissible. A mixture of two or more species of silicone oils or silicone resins is also permissible.

Please replace paragraph [0109] with the following:

Furthermore, as examples of the aforementioned phosphite ~~based stabilizing agent~~anti-oxidant, tris(2,4-di-t-butyl phenyl)phosphite, 2,2-methylenebis(4,6-di-t-butyl phenyl)octyl phosphite, trisnonylphenyl phosphite, alkyl allyl based phosphite, trialkyl phosphite, triallyl phosphite, pentaerythritol based phosphite compounds, etc., may be cited.

Please replace paragraph [0117] with the following:

The flame-retardant polybutylene terephthalate resin composition and formed article of the present invention are produced by ordinarily known methods. For example, (A) a polybutylene terephthalate resin or a mixture of a polybutylene terephthalate resin and a polyethylene terephthalate

resin, (B) a vinyl based resin, (C) a phosphoric acid ester, (D) a salt of a triazine based compound and cyanuric acid or isocyanuric acid, (E) an alkaline earth metal compound, and, in accordance with need, (F) an epoxy compound, a fiber reinforcement material, such as glass fiber, etc., and furthermore, in accordance with need, an inorganic filler other than the fiber reinforcement material, a fluorine based compound, a polycarbonate resin, various flame retarding assistants, an ethylene (co)polymer, a hydrolysis resistance improving material, a hindered phenol antioxidant and/or a phosphite antioxidant, and still further, in accordance with need, other necessary additives, coloring agents, such as pigments, dyes, etc., are pre-mixed or not pre-mixed, and are then supplied to an extruder, etc., and are thoroughly melted and kneaded, whereby a flame-retardant ~~polybutyrene~~polybutylene terephthalate resin composition is prepared.

Please replace paragraph [0142] with the following:

<F-2> A mixture of 30% by weight of versatic acid glycidyl ester “Cardura E10” (produced by Japan Epoxy Resin Co.) and 70% by weight of bisphenol A diglycidyl ether “Epikote 828” (produced by Japan Epoxy Resin Co.). (hereinafter, simply referred to as a mixture of monofunctional glycidyl ester and ~~di~~diglycidyl ether)

Please replace paragraph [0154] with the following:

(1) Flame Retardancy

Using an IS55 EPN injection molding machine produced by Toshiba Kikai, injection molding of test pieces for flame retardancy evaluation was performed in the conditions of a molding temperature of 260°C and a mold temperature of 70°C. In accordance with the evaluation criterion defined in the UL94 vertical test, the flame retardancy thereof was evaluated. The flame retardancy decreases in the order of V-0>V-1>V-2, and the ranking was performed. As for the thickness of the test pieces, a thickness of 1/32 inch (about 0.79 mm, which is hereinafter simply referred to as about

0.8 mm), and a thickness of 1/64 inch (about 0.40 mm, which is hereinafter simply referred to as about 0.4 mm) were employed. Less thicknesses face severer evaluations in flame retardancy. Materials that were inferior in ~~flammability~~flame retardancy and did not reach the aforementioned V-2 and did not fall into any one of the aforementioned flame retardancy ranks were evaluated as nonstandard.

Please replace paragraph [0156] with the following:

(3) ~~Hydrolyzability~~Hydrolysis Resistance

The aforementioned ASTM #1 dumbbell pieces of 3 mm in thickness were subjected to a wet heat treatment for 100 hours in a pressure cooker tester TPC-411 produced by Tabai Co. in the conditions of a temperature of 121°C and a humidity of 100%RH. After that, tensile strengths thereof were measured as described above. Measured values were divided by the tensile strength of an untreated piece, and values thus obtained are presented as percentages, that is, tensile strength retention rates (%).

Please replace Table 1 with the following:

| Composition | Compound- ing amount | Example 1 | Example 2 | Example 3 | Example 4 | Example 5 | Example 6 | Example 7 | Example 8 | Example 9 | Example 10 | Example 11 | Example 12 | Example 13 |
|--|-------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|
| <A-1> PBT | % | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 |
| <B-1> AS | " | 8 | - | - | - | - | - | - | - | - | - | - | - | - |
| <B-2> AS | " | - | 8 | - | - | - | - | - | - | - | - | - | - | 8 |
| <B-3> AS | " | - | - | 8 | - | - | - | - | - | - | - | - | - | - |
| <B-4> Epoxy-modified AS | " | - | - | - | 8 | - | - | - | - | - | - | - | - | - |
| <B-5> AS | " | - | - | - | - | 8 | - | - | - | - | - | - | - | - |
| <B-6> AS | " | - | - | - | - | - | 8 | - | - | - | - | - | - | - |
| <B-7> PS | " | - | - | - | - | - | - | 8 | - | - | - | - | - | - |
| <B-8> PMMA | " | - | - | - | - | - | - | - | 8 | - | - | - | - | - |
| <B-9> ABS | " | - | - | - | - | - | - | - | - | 8 | - | - | - | - |
| <B-10> Multilayer structure | " | - | - | - | - | - | - | - | - | - | 8 | - | - | - |
| <B-11> Multilayer structure | " | - | - | - | - | - | - | - | - | - | - | 8 | - | - |
| <B-12> Multilayer structure | " | - | - | - | - | - | - | - | - | - | - | - | 8 | - |
| <C-1> Phosphoric acid ester | " | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | - |
| <C-2> Phosphoric acid ester | " | - | - | - | - | - | - | - | - | - | - | - | - | 12 |
| <D-1> MC salt | " | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| <E-1> Magnesium hydroxide | " | - | - | - | - | - | - | - | - | - | - | - | - | 0.5 |
| <E-2> Calcium carbonate | " | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | - |
| <G-1> GF | " | 34.5 | 34.5 | 34.5 | 34.5 | 34.5 | 34.5 | 34.5 | 34.5 | 34.5 | 34.5 | 34.5 | 34.5 | 34.5 |
| Property | Unit | | | | | | | | | | | | | |
| Flame retardancy (about 0.8 mm thick) | Rank | V-0 | V-0 | V-0 | V-0 | V-0 | V-0 | V-0 | V-0 | V-0 | V-0 | V-0 | V-0 | V-0 |
| Tensile strength | MPa | 129 | 131 | 130 | 135 | 124 | 112 | 116 | 114 | 112 | 112 | 123 | 118 | 128 |
| Hydrolysis resistance (tensile strength retention rate) | % | 51 | 58 | 61 | 63 | 53 | 48 | 43 | 41 | 40 | 40 | 51 | 44 | 55 |
| Tracking resistance | V | 650 | 650 | 650 | 650 | 625 | 625 | 550 | 650 | 550 | 550 | 600 | 600 | 600 |
| Metal pollution characteristic | Rank | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 0 |

Please replace Table 2 with the following:

| Composition | Compound- ing amount | Comparative example 1 | Comparative example 2 | Comparative example 3 | Example 14 | Comparative example 4 | Example 15 | Comparative example 5 | Example 16 | Comparative example 6 |
|---|-------------------------|--------------------------|--------------------------|--------------------------|---------------|--------------------------|---------------|--------------------------|---------------|--------------------------------|
| <A-1> PBT | % | 35 | 27 | 35 | 20 | 13 | 27 | 27 | 27 | 27 |
| <B-2> AS | " | - | 8 | - | 15 | 22 | 8 | 8 | 8 | 8 |
| <C-1> Phosphoric acid ester | " | 12 | 12 | 12 | 12 | 12 | 17 | 22 | 5 | - |
| <D-1> MC salt | " | 18 | 18 | 18 | 18 | 18 | 13 | 8 | 25 | 33 |
| <E-2> Calcium carbonate | " | - | - | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| <G-1> GF | " | 35 | 34.5 | 34.5 | 34.5 | 34.5 | 34.5 | 34.5 | 34.5 | 31.5 |
| Circumstances during injection molding | | - | - | - | - | - | - | - | - | Formed article not obtained |
| Property | Unit | | | | | | | | | |
| Flame retardancy (about 0.8 mm thick) | Rank | V-0 | V-0 | V-0 | V-1 | Nonstandard | V-0 | V-0 | V-0 | - |
| Tensile strength | MPa | 121 | 125 | 122 | 133 | 124 | 118 | 103 | 108 | - |
| HydrolyzabilityHydrolysis resistance (tensile strength retention rate) | % | 7 | 24 | 22 | 54 | 30 | 45 | 11 | 52 | - |
| Tracking resistance | V | 375 | 625 | 375 | 650 | 550 | 600 | 650 | 650 | - |
| Metal pollution characteristic | Rank | 10 | 1 | 5 | 0 | 0 | 0 | 5 | 0 | - |

Please replace Table 3 with the following:

| Composition | Compound- ing amount | Example 17 | Example 18 | Example 19 | Example 20 | Comparative example 7 | Comparative example 8 | Comparative example 9 | Comparative example 10 | Comparative example 11 |
|--|-------------------------|---|--|---|--|--|--|--------------------------|---------------------------|---------------------------|
| <A-1> PBT | % | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 |
| <B-2> AS | " | 8 | 8 | 8 | 8 | 8 | 8 | - | - | - |
| <C-1> Phosphoric acid ester | " | 12 | 12 | 10 | 10 | 12 | 12 | 12 | 12 | 12 |
| <D-1> MC salt | " | 18 | 18 | 18 | 13 | 18 | 18 | 18 | 18 | 18 |
| <E-2> Calcium carbonate | " | 3 | 4 | 2 | 2.9 | 6 | 10 | 3 | 3 | 3 |
| <G-1> GF | " | 32 | 31 | 35 | 34.5 | 29 | 25 | 32 | 32 | 32 |
| PC | " | - | - | - | - | - | - | 8 | - | - |
| PPE | " | - | - | - | - | - | - | - | 8 | - |
| PPS | " | - | - | - | - | - | - | - | - | 8 |
| Compounding ratio between phosphoric acid ester and alkaline earth metal | | Within the range of expression (5) | Outside the range of expression (5) | Within the range of expression (5) | Outside the range of expression (5) | Outside the range of expression (5) | Outside the range of expression (5) | - | - | - |
| Property | Unit | | | | | | | | | |
| Flame retardancy (about 0.8 mm thick) | Rank | V-0 | V-0 | V-0 | V-0 | V-0 | V-0 | V-0 | V-0 | V-0 |
| Tensile strength | MPa | 124 | 116 | 104 | 118 | 116 | 104 | 118 | 113 | 108 |
| HydrolyzabilityHydrolysis resistance (tensile strength retention rate) | % | 48 | 33 | 47 | 34 | 21 | 8 | 14 | 25 | 21 |
| Tracking resistance | V | 650 | 575 | 650 | 600 | 575 | 650 | 450 | 375 | 375 |
| Metal pollution characteristic | Rank | 0 | 0 | 0 | 0 | 1 | 3 | 3 | 3 | 3 |

Please replace Table 4 with the following:

| Composition | Compound- ing amount | Example 21 | Example 22 | Comparative example 12 | Comparative example 13 | Example 23 | Example 24 | Comparative example 14 | Example 25 | Comparative example 15 |
|---|-------------------------|---------------|---------------|---------------------------|---------------------------|---------------|---------------|-----------------------------|---------------|---------------------------|
| <A-1> PBT | % | 27 | 27 | 35 | 27 | 21 | 6 | - | 59 | 74 |
| <A-2> PET | " | - | - | - | - | 6 | 21 | 27 | - | - |
| <B-2> AS | " | 8 | 8 | - | 8 | 8 | 8 | 8 | 5 | 8 |
| <C-2> Phosphoric acid ester | " | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 13 | 7 |
| <D-1> MC salt | " | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 22 | 10 |
| <E-2> Calcium carbonate | " | 0.5 | 0.5 | - | - | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| <F-1> Monofunctional glycidyl ester | " | 0.5 | - | 0.5 | 0.5 | - | - | - | - | - |
| <F-2> Mixture of monofunctional glycidyl ester and diglycidyl ether | " | - | 0.5 | - | - | - | - | - | - | - |
| <G-1> GF | " | 34 | 34 | 34.5 | 34.5 | 34.5 | 34.5 | 34.5 | | |
| <F-1> Teflon | " | - | - | - | - | - | - | - | 0.5 | 0.5 |
| Circumstances during injection Molding | | - | - | - | - | - | - | Formed article not obtained | - | - |
| Property | Unit | | | | | | | | | |
| Flame retardancy (about 0.8 mm thick) | Rank | V-0 | V-0 | V-0 | V-0 | V-0 | V-0 | | V-1 | Nonstandard |
| Tensile strength | MPa | 128 | 128 | 120 | 123 | 124 | 121 | | 61 | 63 |
| Hydrolyzability (tensile strength retention rate) | % | 81 | 78 | 26 | 38 | 52 | 50 | | 56 | 59 |
| Tracking resistance | V | 650 | 625 | 375 | 600 | 700 | 750 | | 600 | 350 |
| Metal pollution characteristic | Rank | 0 | 0 | 10 | 5 | 0 | 0 | | 0 | 0 |

Please replace Table 5 with the following:

| Composition | Compounding amount | Example 2 | Example 11 | Example 26 | Example 27 | Example 28 | Example 29 | Example 30 | Example 31 | Example 32 |
|--|--------------------|-------------|-------------|------------|------------|------------|-------------|------------|-------------|-------------|
| <A-1> PBT | % | 27 | 27 | 26 | 26 | 26 | 26 | 26 | 27 | 27 |
| <B-2> AS | % | 8 | - | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| <B-11> Multilayer structure | % | - | 8 | - | - | - | - | - | - | - |
| <C-1> Phosphoric acid ester | % | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| <D-1> MC salt | % | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| <E-2> Calcium carbonate | % | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| <G-1> GF | % | 34.5 | 34.5 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 34.3 | 34.3 |
| <I-1> Silicone | % | - | - | 2 | - | - | - | - | - | - |
| <I-2> Phenol resin | % | - | - | - | 2 | - | - | - | - | - |
| <I-3> Phosphonitrile compound | % | - | - | - | - | 2 | - | - | - | - |
| <J-1> Ethylene copolymer | % | - | - | - | - | - | 2 | - | - | - |
| <K-1> Phenoxy resin | % | - | - | - | - | - | - | 2 | - | - |
| <L-1> Hindered phenol antioxidant | % | - | - | - | - | - | - | - | 0.2 | 0.1 |
| <L-2> Phosphite antioxidant | % | - | - | - | - | - | - | - | - | 0.1 |
| Property | Unit | | | | | | | | | |
| Flame retardancy (about 0.8 mm thick) | Rank | V-0 | V-0 | V-0 | V-0 | V-0 | V-1 | V-0 | V-0 | V-0 |
| Flame retardancy (about 0.4 mm thick) | % | Nonstandard | Nonstandard | V-1 | V-1 | V-1 | Nonstandard | V-1 | Nonstandard | Nonstandard |
| Tensile strength | MPa | 131 | 123 | 123 | 121 | 122 | 120 | 122 | 132 | 130 |
| HydrolyzabilityHydrolysis resistance (tensile strength retention rate) | % | 58 | 51 | 51 | 50 | 52 | 50 | 63 | 58 | 56 |
| Tracking resistance | V | 650 | 600 | 625 | 575 | 625 | 700 | 625 | 650 | 650 |
| Metal pollution characteristic | Rank | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Izod impact | J/m | 85 | 115 | - | - | - | 104 | - | - | - |
| Heat resistance (tensile strength retention rate) | % | 42 | 41 | - | - | - | - | - | 61 | 65 |

Please replace paragraphs [0163] through [0170] with the following:

The cases of Comparative Example 1-Comparative Example 3 in Table 2 where neither one of the (B) vinyl resin and the (E) alkaline earth metal compound was compounded or one of them was not compounded were inferior in ~~hydrolyzability~~hydrolysis resistance and metal pollution. Comparative Example 1 and Comparative Example 3 where the (B) vinyl resin was not compounded were also inferior in tracking resistance. From this, it has become apparent that compositions made up of the (A) PBT, the (C) phosphoric acid ester and the (D) MC salt are compositions having challenges in ~~hydrolyzability~~hydrolysis resistance, metal pollution and tracking resistance.

Table 1 indicates effects of the present invention compositions made up of components of the (A) PBT, the (B) vinyl resin, the (C) phosphoric acid ester, the (D) MC salt, and the (E) alkaline earth metal compound regarding ~~flame retardancy, hydrolyzability~~hydrolysis resistance, tracking resistance and metal pollution characteristic.

From Example 1-Example 13 in Table 1, it can be said that the present invention compositions are excellent in flame retardancy, ~~hydrolyzability~~hydrolysis resistance, tracking resistance and metal pollution characteristic while maintaining high degree of flame retardancy, and solve the challenges of Comparative Example 1-Comparative Example 3, and therefore have great effects.

Of Example 1-Example 9, Example 2-Example 4 where an AS containing acrylonitrile at 50wt.% or less and 10wt.% or greater was compounded as the (B) vinyl resin were particularly excellent in ~~hydrolyzability~~hydrolysis resistance and metal pollution characteristic. Among them, Example 4 where the epoxy-modified AS was compounded was particularly excellent in ~~hydrolyzability~~hydrolysis resistance.

Furthermore, from Example 10-Example 12, similar effects were seen in the multilayer structures having the (B) vinyl resin in the shell layer of an outer layer. Among them, Example 11 having an AS in the shell layer of an outer layer was particularly excellent in ~~hydrolyzability~~hydrolysis resistance and metal pollution characteristic.

Table 2 indicates the compounding amounts of the (B) vinyl resin, the (C) phosphoric acid ester and the (D) MC salt, and effects regarding flame retardancy, ~~hydrolyzability~~hydrolysis resistance, tracking resistance and metal pollution characteristic.

From Example 14 and Comparative Example 4, in the cases of a compounding amount of the (B) vinyl resin exceeding 20%, the flame retardancy and the ~~hydrolyzability~~hydrolysis resistance greatly deteriorated.

From Example 15 and Comparative Example 5, in the cases of a compounding amount of the (C) phosphoric acid ester exceeding 20%, the ~~hydrolyzability~~hydrolysis resistance and the metal pollution characteristic greatly deteriorated.

Please replace paragraph [0172] with the following:

Table 3 indicates effects regarding flame retardancy, ~~hydrolyzability~~hydrolysis resistance, tracking resistance, and metal pollution characteristic, in relation to the compounding amount of the (E) alkaline earth metal compound, and the compounding ratio of the (C) phosphoric acid ester and the (E) alkaline earth metal compound. Table 3 also indicates effects regarding flame retardancy, ~~hydrolyzability~~hydrolysis resistance, tracking resistance, and metal pollution characteristic in the cases where PC, PPO or PPS was compounded in place of the (B) vinyl resin.

Please replace paragraphs [0174] through [0178] with the following:

Calcium carbonate, etc., that is, an alkaline earth metal ~~compound~~compound compounded in the present invention, is generally compounded in plastics as an inorganic filler in some cases for

improving dimension stability, etc. However, the compounding amount thereof in such cases is greater than 5%, and is ordinarily 10-30% in many cases in order to bring about the effect as an ordinary filler. That is, in the present invention, the amount thereof compounded as a general inorganic filler does not have effects of the present invention. By compounding calcium carbonate in a compounding amount of 5% or less, and preferably within the range of the expression (5), the ~~hydrolyzability~~hydrolysis resistance and metal pollution characteristic effects of the present invention are realized.

Furthermore, from Comparative Example 9-Comparative Example 11, the compositions in which PC, PPE or PPS was compounded in replace of the (B) vinyl resin were compositions excellent in flame retardancy but inferior in ~~hydrolyzability~~hydrolysis resistance, tracking resistance and metal pollution characteristic. Therefore, it can be said that by compounding the (B) vinyl resin, effects of the present invention can be obtained.

Table 4 indicates the effect of the epoxy compound of (F), the effect of the case where a mixture of PBT and PET was used as the (A) component, and the effects regarding flame retardancy, ~~hydrolyzability~~hydrolysis resistance, tracking resistance and metal pollution characteristic with respect to the compounding amount of the (A) component and the compositions of non-reinforced resin without glass fiber compounded.

From comparison of Example 21 and Example 22 with Example 2, the ~~hydrolyzability~~hydrolysis resistance was improved to a large extent by compounding the epoxy compound of (F) in the present invention composition. From Comparative Example 12 and Comparative Example 13, the cases where the (B) vinyl based resin and the (E) alkaline earth metal compound, or the (E) alkaline earth metal compound was not compounded resulted in compositions that were inferior in metal

pollution characteristic besides having a reduced effect regarding ~~hydrolyzability~~hydrolysis resistance.

From Example 23-Example 24, it can be said that, also in the cases where a mixture of PBT and PET was used, compositions excellent in flame retardancy, ~~hydrolyzability~~hydrolysis resistance, tracking resistance and metal pollution characteristic can be obtained. Particularly, compared with the composition of Example 2 without the PET mixed, the cases employing the (A) mixture of PBT and PET obtained a tracking resistance exceeding 700V, and therefore the cases employing the (A) mixture of PBT and PET can be said to have an effect of further improving the tracking resistance.

Please replace paragraph [0180] with the following:

From comparison of Example 25 and Comparative Example 15, it can be said that even with a non-reinforced resin without glass fiber compounded, a composition excellent in flame retardancy, ~~hydrolyzability~~hydrolysis resistance, tracking resistance and metal pollution characteristic can be obtained. However, from Comparative Example 15, if the amount of the (A) component exceeds 70%, the flame retardancy cannot be obtained.

Please replace paragraph [0184] with the following:

In Example 30, a phenoxy resin was compounded as a ~~hydrolyzability~~hydrolysis resistance-improving agent, and an effect on the ~~hydrolyzability~~hydrolysis resistance was seen. However, the effect thereof is inferior, in comparison with the epoxy compound of Example 21. Still, as a high degree of flame retardancy was obtained, it can be said to have a flame retarding assistant effect.

Please replace paragraph [0187] with the following:

Since in the present invention highly reliable formed articles having excellent performances particularly with respect to flame retardancy, ~~hydrolyzability~~hydrolysis resistance and metal pollution are obtained, the present invention is especially useful for electrical/electronic component parts, such

as relays, breakers, electromagnetic switches, focus cases, flyback transformers, formed articles for fusers of copiers and printers, etc.